Brain Research Bulletin, Vol. 54, No. 6, pp. 697–703, 2001
Copyright © 2001 Elsevier Science Inc.
Printed in the USA. All rights reserved
0361-9230/01/$–see front matter

ELSEVIER

PII S0361-9230(01)00543-3

CONTENTS
VOLUME 54, 2001

CONTENTS VOLUME 54 NUMBER 1 JANUARY 1, 2001

Articles

Vendor differences in cocaine-induced behavioral activity and hormonal interactions in ovariectomized Fischer rats.
Perrotti, L. I., S. J. Russo, F. Lagos, and V. Quiñones-Jenab 1

Microinjection of a 5-HT_3 receptor agonist into the NTS of awake rats inhibits the bradycardic response to activation of the von Bezold-Jarisch reflex.
Leal, D. M., J. C. Callera, L. G. H. Bonagamba, A. Nosjean, R. Laguzzi, and B. H. Machado 7

Progesterone receptor isoforms expression in the prepuberal and adult male rat brain.
Guerra-Araiza, C., A. Reyna-Neyra, A. M. Salazar, M. A. Cerbón, S. Morimoto, and I. Camacho-Arroyo 13

Expression of stathmin and SCG10 proteins in the olfactory neurogenesis during development and after lesion in the adulthood.
Camoletto, P., A. Colesanti, S. Ozon, A. Sobel, and A. Fasolo 19

Behavioural, histological and immunocytochemical consequences following 192 IgG-saporin immunolesions of the basal forebrain cholinergic system.
Perry, T., H. Hodges, and J. A. Gray 29

Role of nitric oxide in insulin-induced hypothermia in rats.
Almeida, M. C., and L. G. S. Branco 49

Role of PAG in the antinociception evoked from the medial or central amygdala in rats.
Oliveira, M. A., and W. A. Prado 55

Studies on the involvement of the dopaminergic system in the 5-HT_2 agonist (DOI)-induced premature responding in a five-choice serial reaction time task.
Koskinen, T., and J. Sirviö 65

Protective effect of quinacrine on striatal dopamine levels in 6-OHDA and MPTP models of Parkinsonism in rodents.
Tariq, M., H. A. Khan, K. Al Moutaery, and S. Al Deeb 77

Sex steroid hormones exert biphasic effects on cytosolic magnesium ions in cerebral vascular smooth muscle cells: Possible relationships to migraine frequency in premenstrual syndromes and stroke incidence.
Li, W., T. Zheng, B. M. Altura, and B. T. Altura 83

Intrahippocampal infusion of antisense oligodeoxynucleotide to the $GABA_A$ receptor $\gamma 2$ subunit enhances neuropeptide Y gene expression.
Mikkelsen, J. D., J. Karle, and T. M. Madsen 91

Sexual diergism in rat hypothalamic-pituitary-adrenal axis responses to cholinergic stimulation and antagonism.
Rhodes, M. E., S. M. O'Toole, S. L. Wright, R. K. Czambel, and R. T. Rubin 101

Technical Report

Evaluation of muscle re-innervation employing pre- and post-axotomy injections of fluorescent retrograde tracers.
Popratiloff, A. S., W. F. Neiss, E. Skouras, M. Streppel, O. Guntinas-Lichius, and D. N. Angelov 115

CONTENTS VOLUME 54 NUMBER 2 JANUARY 15, 2001

Articles

Effects of stimulus presentation rate on the activity of primary somatosensory cortex: A functional magnetic resonance imaging study in humans.
Takanashi, M., K. Abe, T. Yanagihara, Y. Oshiro, Y. Watanabe, H. Tanaka, N. Hirabuki, H. Nakamura, and N. Fujita 125

Ultrastructural evidence for presynaptic μ opioid receptor modulation of synaptic plasticity in NMDA-receptor-containing dendrites in the dentate gyrus.
Milner, T. A., and C. T. Drake 131

Alteration of spontaneous firing rate of primary myelinated afferents by ATP in adjuvant-induced inflamed rats.
Zhang, Y.-H., Y. Chen, and Z.-Q. Zhao 141

Neural correlates of sensory gating in the rat: Decreased Fos induction in the lateral septum.
van Luijtelaar, G., P. F. Fabene, N. de Bruin, C. Jongema, B. A. Ellenbroek, and J. G. Veening 145

Involvement of NMDA and AMPA/kainate receptors in the effects of endogenous glutamate on extracellular concentrations of dopamine and GABA in the nucleus accumbens of the awake rat.
Segovia, G., and F. Mora 153

Laterality of the spinocerebellar axons and location of cells projecting to anterior or posterior cerebellum in the chicken spinal cord.
Yamamoto, M., M. Akita, T. Imagawa, and M. Uehara 159

Lamina I-periaqueductal gray (PAG) projections represent only a limited part of the total spinal and caudal medullary input to the PAG in the cat.
Mouton, L. J., E.-M. Klop, and G. Holstege 167

The efferent connections to the thalamus and brainstem of the physiologically defined eye field in the rat medial frontal cortex.
Guandalini, P. 175

Expression of the E2F and retinoblastoma families of proteins during neural differentiation.
Kusek, J. C., R. M. Greene, and M. M. Pisano 187

Increased nitric oxide synthase activity in a model of serotonin depletion.
Tagliaferro, P., A. J. Ramos, J. J. López-Costa, E. M. López, J. P. Saavedra, and A. Brusco 199

Involvement of nitric oxide in morphine-induced c-Fos expression in the rat striatum.
Harlan, R. E., D. S. Webber, and M. M. Garcia 207

Effects of a kappa agonist, spiradoline mesylate (U62,066E), on activation and vaginocervical-stimulation produced analgesia in rats.
Boyle, T. J., T. Masuda, and S. T. Cunningham 213

An overview of the central nervous system of the elephant through a critical appraisal of the literature published in the XIX and XX centuries.
Cozzi, B., S. Spagnoli, and L. Bruno 219

Agonists determine the pattern of G-protein activation in μ-opioid receptor-mediated supraspinal analgesia.
Sánchez-Blázquez, P., P. Gómez-Serranillos, and J. Garzón 229

A grasp-related deficit in tactile discrimination following dorsal column lesion in the rat.
Ballermann, M., J. McKenna, and I. Q. Whishaw 237

Technical Report

The staircase test of skilled reaching in mice.
Baird, A. L., A. Meldrum, and S. B. Dunnett 243

Special Issue: The Dynamics of Cortical Macronetworks in the Human Brain

Editorial

The dynamics of cortical macronetworks in the human brain: Introduction and overview.
Gulyás, B. 251

Articles

Maturation of white matter in the human brain: A review of magnetic resonance studies.
Paus, T., D. L. Collins, A. C. Evans, G. Leonard, B. Pike, and A. Zijdenbos 255

Interpreting PET and fMRI measures of functional neural activity: The effects of synaptic inhibition on cortical activation in human imaging studies.
Tagamets, M.-A., and B. Horwitz 267

Dynamic representations and generative models of brain function.
Friston, K. J., and C. J. Price 275

Cortical networks for working memory and executive functions sustain the conscious resting state in man.
Mazoyer, B., L. Zago, E. Mellet, S. Bricogne, O. Etard, O. Houdé, F. Crivello, M. Joliot, L. Petit, and N. Tzourio-Mazoyer 287

Cerebral networks in sensorimotor disturbances.
Seitz, R. J., U. Knorr, N. P. Azari, and B. Weder 299

Processing of odorous signals in humans.
Savic, I. 307

Different neural systems for recognizing plants, animals, and artifacts.
Kawashima, R., G. Hatano, K. Oizumi, M. Sugiura, H. Fukuda, K. Itoh, T. Kato, A. Nakamura, K. Hatano, and S. Kojima 313

Neural networks for internal reading and visual imagery of reading: A PET study.
Gulyás, B. 319

Review Article

Cytokines and the central nervous system.
Szelényi, J. 329

Articles

Ovulation delay induced by blockade of the cholinergic system on dioestrus-1, is related to changes in dopaminergic activity of the preoptic anterior-hypothalamic area of the rat.
Cruz, M. E., G. Villegas, A. Domínguez-González, R. Chavira, and R. Domínguez ... 339

Changes in monoaminergic activity in the anterior, medium and posterior hypothalamus, gonadotropins levels and ovarian hormones during puberty of the female rat.
Castro, M. E., M. E. Ayala, J. Monroy, R. Chavira, P. Damian-Matsumura, and R. Domínguez 345

Glial reaction to volkensin-induced selective degeneration of central neurons.
Cevolani, D., M. Bentivoglio, and P. Strocchi 353

Stimuli that induce a cholinergic neuronal phenotype of NG108-15 cells upregulate ChAT and VAChT mRNAs but fail to increase VAChT protein.
Dolezal, V., X. Castell, M. Tomasi, and M. F. Diebler 363

Neurochemical phenotype of sympathetic nervous system outflow from brain to white fat.
Shi, H., and T. J. Bartness 375

Hypercapnia stimulates prostaglandin E_2 but not preostaglandin I_2 release in endothelial cells cultured from microvessels of human fetal brain.
Kövecs, K., K. Domjáti, T. Marton, J. Skopál, P. Sándor, and Z. Nagy 387

Effects of intraplantar injection of carrageenan on central dopamine release.
Gao, X., Y.-Q. Zhang, L.-M. Zhang, and G.-C. Wu 391

The inhibitory effect of serotonin on the spontaneous discharge of suprachiasmatic neurons in hypothalamic slice is mediated by 5-HT_7 receptor.
Yu, G.-D., Y.-L. Liu, X.-H. Jiang, S.-Y. Guo, H.-Q. Zhang, Q.-Z. Yin, and T. Hisamitsu 395

Tecto-isthmo-optic transmission in pigeons is mediated by glutamate and nitric oxide.
Hu, J., S. Li, Q. Xiao, and S.-R. Wang 399

α-Spectrins are major ubiquitinated proteins in rat hippocampal neurons and components of ubiquitinated inclusions in neurodegenerative disorders.
Sangerman, J., A. Killilea, R. Chronister, M. Pappolla, and S. R. Goodman 405

Characteristics of protective effects of NMDA antagonist and calcium channel antagonist on ischemic calcium accumulation in rat hippocampal CA1 region.
Kubo, T., T. Yokoi, Y. Hagiwara, R. Fukumori, Y. Goshima, and Y. Misu 413

Activation of the subfornical organ enhances extracellular noradrenaline concentrations in the hypothalamic paraventricular nucleus in the rat.
Tanaka, J., Y. Hayashi, K. Sakamaki, T. Okumura, and M. Nomura 421

Brain electrical microstates in subjects with panic disorder.
Galderisi, S., P. Bucci, A. Mucci, A. Bernardo, T. Koenig, and M. Maj 427

Deficient energy metabolism is associated with low free magnesium in the brains of patients with migraine and cluster headache.
Lodi, R., S. Iotto, P. Cortelli, G. Pierangeli, S. Cevoli, V. Clementi, S. Soriani, P. Montagna, and B. Barbiroli 437

Pro-inflammatory and anti-inflammatory cytokine mRNA induction in the periphery and brain following intraperitoneal administration of bacterial lipopolysaccharide.
Turrin, N. P., D. Gayle, S. E. Ilyin, M. C. Flynn, W. Langhans, G. J. Schwartz, and C. R. Plata-Salamán 443

Quantitative changes in mitochondria of spinal ganglion neurons in aged rabbits.
Ledda, M., C. Martinelli, and E. Pannese 455

History of Neuroscience

On the fine structure of *pes Hippocampi major.* By Camillo Golgi.
Translated by Bentivoglio, M., and L. W. Swanson, with a Translators' Preface ... 461

Articles

Connections of the auditory cortex with the claustrum and the endopiriform nucleus in the cat.
Beneyto, M., and J. J. Prieto 485

Mu opioid receptor efficacy and potency of morphine-6-glucuronide in neonatal guinea pig brainstem membranes: Comparison with transfected CHO cells.
Gray, R. E., M. W. Munks, R. R. Haynes, and G. D. Olsen 499

Ω-Conotoxin GVIA potently inhibits the currents mediated by P2X receptors in rat DRG neurons.
Lalo, U. V., Y. V. Pankratov, D. Arndts, and O. A. Krishtal 507

Alterations in signal transduction cascade in young and adult rat brain and lymphocytes.
Sandhu, S. K., S. K. Bhardwaj, P. Sharma, and G. Kaur 513

Further evidence for a significant participation of the melanocortin 4 receptor in the preovulatory prolactin surge in the rat.
Watanobe, H., M. Yoneda, Y. Kakizaki, A. Kohsaka, T. Suda, and H. B. Schiöth 521

Effects of morphine on pentobarbital-induced responses in μ-opioid receptor knockout mice.
Park, Y., I. K. Ho, C.-G. Jang, S. Tanaka, T. Ma, H. H. Loh, and K. H. Ko 527

Spider neurotoxins block the β scorpion toxin-induced calcium uptake in rat brain cortical synaptosomes.
Miranda, D. M., M. A. Romano-Silva, E. Kalapothakis, C. R. Diniz, M. N. Cordeiro, T. Moraes-Santos, L. De Marco, M. A. M. Prado, and M. V. Gomez 533

Differential roles of spinal cholera toxin- and pertussis toxin-sensitive G proteins in nociceptive responses caused by formalin, capsaicin, and substance P in mice.
Chung, K.-M., K.-C. Lee, S.-S. Choi, and H.-W. Suh 537

Tuning to Y-like figures in the cat striate neurons.
Shevelev, I. A., N. A. Lazareva, R. V. Novikova, A. S. Tikhomirov, G. A. Sharaev, and D. Y. Cuckiridze 543

α_{2C}-Adrenoceptors modulate the effect of methylphenidate on response rate and discrimination accuracy in an operant test.
Ihalainen, J. A., H. Tanila, M. Scheinin, and P. Riekkinen Jr. 533

New spatial cognition tests for mice: Passive place avoidance on stable and active place avoidance on rotating arenas.
Cimadevilla, J. M., A. A. Fenton, and J. Bures 559

Sign of lipid peroxidation as measured in the urine of patients with probable Alzheimer's disease.
Tuppo, E. E., L. J. Forman, B. W. Spur, R. E. Chan-Ting, A. Chopra, and T. A. Cavalieri 565

The development of NADPH-diaphorase and nitric oxide synthase in the visual system of the cichlid fish, *Tilapia mariae*.
Villani, L., D. Minelli, A. Giuliani, and A. Quaglia 569

Three-dimensional estimation of the distribution and size of putative functional units in rat gustatory cortex as assessed from the inter-neuronal distance between two neurons with correlative activity.
Yokota, T., and T. Satoh 575

Letters to the Editor

Comment on "The significance of supraspinal control of reflex actions".
Vilensky, J. A., and S. Gilman 585

Reply.
Burke, R. E. 586

Review Article

The mammalian pituitary intermediate lobe: An update on innervation and regulation.
Saland, L. C. 587

Articles

Role of the α_1- and α_2-adrenoceptors of the paraventricular nucleus on the water and salt intake, renal excretion, and arterial pressure induced by angiotensin II injection into the medial septal area.
Camargo, L. A. A., and W. A. Saad 595

Decreased striatal dopamine efflux after intrastriatal application of benzazepine-class D1 agonists is not mediated via dopamine receptors.
Zackheim, J. A., and E. D. Abercrombie 603

Coriolis-induced cutaneous blood flow increase in the forearm and calf.
Cheung, B., and K. Hofer 609

Collateral projections from the median raphe nucleus to the medial septum and hippocampus.
McKenna, J. T., and R. P. Vertes 619

Alteration of dopamine transport in the striatum and nucleus accumbens of ovariectomized and estrogen-primed rats following N-(p-isothiocyanatophenethyl) spiperone (NIPS) treatment.
Thompson, T. L., S. R. Bridges, and W. J. Weirs 631

Cholinergic, noradrenergic, and serotonergic inhibition of fast synaptic transmission in spinal lumbar dorsal horn of rat.
Li, P., and M. Zhuo 639

Repeated neonatal maternal separation alters morphine-induced antinociception in male rats.
Kalinichev, M., K. W. Easterling, and S. G. Holtzman 649

Orphanin FQ/nociceptin binds to functionally coupled ORL1 receptors on human immune cell lines and alters peripheral blood mononuclear cell proliferation.
Peluso, J., C. Gavériaux-Ruff, H. W. D. Matthes, D. Filliol, and B. L. Kieffer 655

Membrane fluidity effects of estratrienes.
Liang, Y., S. Belford, F. Tang, L. Prokai, J. W. Simpkins, and J. A. Hughes 661

Enzyme histochemical profile of immunohistochemically identified Renshaw cells in rat lumbar spinal cord.
Carr, P. A., M. Liu, and R. A. Zaruba 669

Deprenyl stimulates the efflux of monoamines from the rat hypothalamus *in vitro*.
MohanKumar, P. S., S. M. J. MohanKumar, and S. K. Quadri 675

Male–female differences in rat hypothalamic-pituitary-adrenal axis responses to nicotine stimulation.
Rhodes, M. E., S. M. O'Toole, R. K. Czambel, and R. T. Rubin 681

The differential effect of angiotensin II and angiotensin 1-7 on norepinephrine, epinephrine, and dopamine concentrations in rat hypothalamus: The involvement of angiotensin receptors.
Pawlak, R., D. Napiorkowska-Pawlak, Y. Takada, T. Urano, N. Nagai, H. Ihara, and A. Takada 689

Volume 54 List of Contents 695

Author Index 705

Keyword Index 707